APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,229	07/11/2003	Young-Chan Kim	1293.1854	2343

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EXAMINER
RAHMJOO, MANUCHER

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/617,229	KIM, YOUNG-CHAN
	Examiner	Art Unit	
	Mike Rahmjoo	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 April 2007</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-15</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1- 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1- 15 line 8 recites "...detecting a minimum pixel level value...". It is unclear what applicant is referring to as "pixel level". Some of the attributes of pixels are for example intensity, Gamma, etc. Is it the pixel attributes and their levels or is it something else.

Claims 2-3 are indefinite because they depend on indefinite antecedent claim.

Claims 4- 15 have similar rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1- 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over King

et al (US Patent 5,644,325), hereinafter, King in view of Yamakawa et al (US Patent

5,809,366), hereinafter, Yamakawa.

As per claims 1, 4- 5, 7, 11- 12 and 14 and as to the broadest reasonable

interpretation by examiner, King teaches receiving RGB signals from host (col. 16 line

55 corresponding to host) see for example figures 10- 11;

selecting one of an R, a G, or a B component of an RGB signal (see for example

col. 3 lines 23- 27 for the selection of color blue and claims 2 and 3 wherein level select

circuit controls the level of each R or G or B independently to control a color mixture)

including a video signal as a selected one R,G, or B component see for example

column 5 lines 38- 40 and setting a region (color key range) of the selected one R,G, or

B signal as a checked region which is checked see for example column 7 line 25.

However King does not teach detecting a minimum pixel level value in the

checked region of the selected one R,G, or B component and comparing the minimum

pixel level value for the selected one R,G, or B component with a predetermined

threshold value and checking whether an abnormal one R,G, or B component includes

an abnormal video signal; and displaying on a screen a message indicator indicating

whether the selected one R,G, or B component includes an abnormal video signal; and

signal input unit receiving RGB signals, a horizontal and vertical synchronization signal;

and a storage unit storing the minimum pixel level value detected in the particular region

of the selected one R,G, or B component.

Yamakawa teaches detecting a minimum pixel level value (determining the exact colors defining the point corresponding detecting minimum pixel level value to the colors of these points as said colors deviate the expected result by more than an allowable range wherein said deviation may assume any values in the minimum range and or maximum range see col. 14 lines 27- 30) in the checked region of the selected one R,G, or B component see for example column 14 lines 27- 31 for points deviated by more than an allowable range corresponding to the detecting a minimum pixel level;

comparing the minimum pixel level value for the selected one R,G, or B component with a predetermined threshold value (previous RGB data or allowable range) and checking whether an abnormal one R,G, or B component includes an abnormal video signal see for example column 14 lines 35- 38 wherein RGB data is compared with previous RGB data and correction is based on the results of comparison;

displaying on a screen a message indicator (corresponding to displaying a warning) indicating whether the selected one R,G, or B component includes an abnormal video signal see for example column 14 lines 27- 35 through displaying a warning (a flag generated by the color calibration system) due to deviation by more than an allowable range OR improper reading of data;

signal input unit receiving R,G,B signals, a horizontal and vertical synchronization signal see for example figures 3- 5 for the color calibration system corresponding to the input unit for receiving R,G,B signals;

a storage unit storing the minimum pixel level value detected in the selected one

R,G, or B component see for example the color calibration system of figures 4- 5

corresponding to the storage unit.

It would have been made obvious to one of ordinary skilled in the art at the time

the invention was made to incorporate the teachings of Yamakawa into King to

perform minimum pixel level detection and comparison with a predetermined threshold

value and thereafter displaying of a screen message as to provide a color balance

selection method which allows a user to select the color balance relative to the

calibrated standard of an image processing device and therefore reproduce colors

contained in a specific image chosen by a user and thereby offer an efficient and user

friendly device see for example column 2 lines 7-23.

As per claims 2 and 9 Yamakawa teaches setting a flag (warning) which

indicates whether the selected one R,G, or B component is abnormal when the

minimum pixel level value is smaller (deviation by more than an allowable range) than a

predetermined threshold value see for example column 14 line 32, and resetting

(execute scanning again or repeat the process) the flag when the minimum pixel level

value is larger (deviation by more than an allowable range) than the predetermined

threshold value see for example column 14 lines 32- 33.

As per claim 3 and 10 Yamakawa teaches checking whether a flag indicating

whether the selected one R,G, or B component is abnormal is set see for example

figure 17 for the loop in the flow chart regarding the display warning block 494; checking

if a video signal checking function is enabled when the flag is set see for example figure

17 (block 490) for the flow chart regarding color determination (checking) of the colors

of the printed frames; and inherently teaches setting how long the message will be

displayed and how long a predetermined warning message is displayed, when enabling

of the video signal checking function is confirmed see for example column 14 lines 41-

46 through the clock of the color calibration system which reduces the time (time setting

for displaying a message) needed to perform the color balance adjustment along with

reducing a load imposed on the processing system.

As per claims 6 and 15 and as to the broadest reasonable interpretation by

examiner Yamakawa teaches the controller generates an on-screen-display (OSD)

signal (displaying a warning) that enables and disables (the flow chart of figure 17) an

R,G,B signal checking function.

As per claim 8 and in view of the rejection of the independent claims Yamakawa

teaches extracting a minimum pixel level value when the pixel level value in the

selected one R,G, or B component is smaller than the predetermined value see for

example figure 21 and column 14 lines 27- 30 for points 530- 533 when there is

deviation more than a allowable range.

As per claim 13 and in view of the rejection of the independent claims Yamakawa

teaches a comparator (color calibration system) comparing the minimum pixel level

value in the selected one R,G, or B component with a minimum pixel level value

detected in a previous signal (see for example column 14 line 36 fro comparing R,G,B

data with previous R,G,B data), and extracts a minimum pixel level value see for

example column 14 lines 30- 31 for improper reading or inputting due to deviation by

more than an allowable range.

Response to Arguments

Applicant's arguments filed 04/17/2007 have been fully considered but they are

not persuasive.,

As per applicant's remarks on 6, applicant points out to the personal interview

held on 03/19/2007, without any agenda prior to the interview. As pointed out in the

interview summary made of the record, applicant's representative tried to make

clarifications on some of the limitation of claim 1 which examiner agreed to *appear* to be

missing. No substantial agreements were made and examiner agreed to further review

the prior arts made of the record in light of said clarifications. Upon further review and in

light of said clarifications examiner states as follows.

Column 7 line 25 recites of King et al "predetermined color key range". When

said "color key range" is within some range, this clearly corresponds to "a setting a

region" as claimed. The fact that it is "predetermined" or not , by no means disables a

"setting" to be made. King et al in the same column further recites "when analog

multiplexer 70 is thus controlled, the motion video picture is displayed in the video

window 56 instead of the color key value outputted by VGA card 54". As obviated the

controlling step is followed by the displaying.

Column 14, line 30 of the secondary reference Yamakawa et al point out to a region of a frame and allegedly is lacking RGB as pointed out by applicant's representative during interview.

Examiner respectfully disagrees and points out to column 13 lines 20- 25, which recites RGB color data used for frame processing.

In response to applicant's remarks on page 6- 7 wherein applicant argues "Firstly, Yamakawa et al does not detect any pixel level of a selected component of an RGB signal. Secondly, Yamanaka et al. relates to calibrating a color copier, not signal processing", examiner points out to detecting a minimum pixel level value (determining the exact colors defining the point corresponding detecting minimum pixel level value to the colors of these points as said colors deviate the expected result by more than an allowable range wherein said deviation may assume any values in the minimum range and or maximum range see col. 14 lines 27- 30) in the checked region of the selected one R,G, or B component.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that Yamakawa et al is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the

applicant was concerned, in order to be relied upon as a basis for rejection of the

claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir.

1992). In this case, Yamakawa et al teaches color adjusting or calibrating by

determining the exact colors. And if any deviations are noticed a warning is displayed.
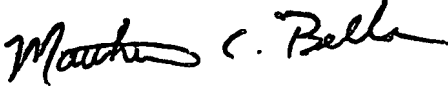
Inquiry

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-

7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

May 9, 2007

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